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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,221	08/13/2001	Stephen F. Gass	SDT 302	2131
27630	7590	01/29/2004	EXAMINER	
SD3, LLC 22409 S.W. NEWLAND ROAD WILSONVILLE, OR 97070			DRUAN, THOMAS J	
		ART UNIT	PAPER NUMBER	12
3724				
DATE MAILED: 01/29/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/929,221	GASS ET AL.	
	Examiner	Art Unit	
	Thomas J. Druan, Jr.	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 October 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>11</u> .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

1. This action is in response to Applicant's amendment received on 21 October 2003.

It should be noted that for the purpose of this office action the below rejections under 35 U.S.C. 101 (double patenting) are being made under the assumption that the applications were not commonly owned at the time of applicant's invention. It should further be noted that rejections under 35 U.S.C 102(a) and 102(e) using the same U.S. Patent Applications/Publications have not been made because they do not qualify as prior art as their filing dates are not before the filing date of the instant application.

Additionally, it should be noted that the below double patenting rejections are based upon known and available co-pending applications and although it is believed that all appropriate rejections have been made, Applicant's help in determining all appropriate double patenting rejections with all of Applicant's applications is requested because of the large number of similar applications.

SPECIAL CIRCUMSTANCES OF THIS APPLICATION:

2. Even if a copending application is listed as a parent to the instant application and material information is technically of record in one or more parent applications, the unusually large number of applicant's cases in varying stages of the examination process might result in one or more parent applications not being readily available for review, or material information of record not being readily apparent. Applicant should point out such material information to the examiner of the instant application if the criteria for materiality applies, and if the examination record provides applicant reason to believe such information has not been considered by the examiner.

If, to the best of applicant's knowledge, applicant has no previous patent or copending application, which would meet the definition of "material," applicant is requested to make a statement of that fact of record.

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Any parent application labeled as a CIP or Divisional is assumed to claim a patentably distinct invention from the claims of this application and therefore the issue of double patenting has not been considered and the rights to priority are limited to the common disclosed subject matter unless it is brought to the examiners attention that some claims are not distinct.

37 CFR 1.56 is cited here:

37 CFR 1.56. Duty to disclose information material to patentability.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 17 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 22 of copending Application No. 09/929,426. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 22 of 09/929,426 discloses the woodworking tool having a cutting tool that is capacitively coupled to a contact detection system.

5. Claim 17 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of copending Application No. 10/100,211. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 2 of 10/100,211 discloses the woodworking tool having a cutting tool that is capacitively coupled to a contact detection system.

6. Claims 1, 10, 12, 16 and 17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of copending Application No. 10/146,527. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 4 of 10/146,527 discloses the woodworking tool having a cutting tool mounted on a shaft, wherein the cutting tool is capacitively coupled to a contact detection system through said shaft.

7. Claim 17 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 10 of copending

Application No. 10/215,929. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 10 of 10/215,929 discloses the woodworking tool having a cutting tool that is capacitively coupled to a contact detection system.

These are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

Comments on Commonly Assigned Applications

8. Claims 1, 10, 12, 16 and 17 are directed to an invention not patentably distinct from the claims, see above, of commonly assigned applications, for the reasons stated above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned applications, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee is required under 35 U.S.C. 103(c) and 37 CFR 1.78(c) to either show that the conflicting inventions were commonly owned at the time the invention in this application was made or to name the prior inventor of the conflicting subject matter. Failure to comply with this requirement will result in a holding of abandonment of the application.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 8, 11, 15 & 18 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a capacitive coupling between an electrode and a shaft, does not reasonably provide enablement for a capacitive coupling having a value of 10 picofarads. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. While it was mentioned on page 14, lines 11-13 of the original specification that the human body has a capacitance of approximately 25-200 picofarads, there is no mention of what value any capacitive coupling should be.

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(f) he did not himself invent the subject matter sought to be patented.

13. Claims 1-18 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter.

It is not clear who actually invented the subject matter of claims 1-18 because each of the above co-pending applications have different inventive entities. Therefore, it is not clear which portion of the applications were invention by the same inventive entity of the instant application.

14. Claims 1 & 5-11 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,722,021 to Hornung et al. (hereinafter Hornung).

A woodworking machine comprising: an electrically conductive cutting tool mounted on a rotatable, electrically conductive and electrically isolated (inherent) shaft 8; a contact detection system 10 for detecting contact between a conductor and the cutting tool, where the contact detection system includes one or more drive electrodes 9 and an excitation system 11 adapted to impart an electrical signal onto the cutting tool through the drive electrode; and a reaction system 15 configured to cause one or more predetermined actions to take place, including stopping a motor 5 from rotating the cutting tool, upon detection of contact between a person and the cutting tool by the contact detection system (column 4, lines 22-26); where the one or more drive electrodes are disposed adjacent and spaced apart from the shaft to form a capacitive coupling with the shaft, and where the one or more drive electrodes are adapted to impart the electrical signal onto the cutting tool through the shaft, and a sense electrode

(such as one in the sensing circuitry, or threshold circuit, in the current measuring stage 10 disclosed in column 4, lines 18-20) disposed adjacent the shaft (as all items within the machine are adjacent due to the fact that the machine is handheld and therefore relatively small) is configured to monitor the electrical signal on the cutting tool (column 4, lines 8-22). The drive electrode has a capacitive coupling to the cutting tool of 100 picofarads (column 4, lines 39-40).

The “conductor” in Hornung is disclosed as being a metallic object (column 4, lines 24-29), though a person has an inherent conductance and capacitance capable of triggering the reaction system as well. Current would flow through a human body just as it would through a metallic body, especially in cases where the human body is grounded – when leaning against a metal worktable, for example. As such, the invention of Hornung is inherently capable of detecting contact between a person and the cutting tool.

Regarding claim 10 and claims depending therefrom, Hornung discloses that the term “bit” and “bit holder” is deemed to encompass a circular saw and saw arbor (column 6, lines 28-34).

15. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by US 3,858,095 to Friemann et al.

Friemann et al. discloses the invention as claimed including an electrically conductive cutting tool 5; a motor **M** configured to drive a cutting tool; a contact detection system 3 configured to detect contact between a person and the cutting tool; a capacitive coupling **C_{Bm}** between the contact detection system and the cutting tool; and

a brake mechanism 13 configured to engage and stop the cutting tool if contact between the person and the cutting tool is detected by the contact detection system; where the contact detection system is configured to impart an electrical signal onto the cutting tool through the capacitive coupling, and to detect contact between a person and the cutting tool based on changes in the electrical signal imparted to the cutting tool (column 3, lines 21-68).

Claim Rejections - 35 USC § 103

16. Claims 2 & 12-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hornung.

Hornung discloses the invention substantially as claimed as described above, but lacks mention of the cutting tool or shaft being insulated from a frame of the machine. It would have been obvious to one skilled in the art that the shaft (and therefore cutting tool as well) of Hornung would be insulated from the frame because if it were not insulated from its frame, it would be greatly affected by false alarms that shut the motor off due to conduction between a person, or any other conductive material, and the frame. If such insulation from the frame were not inherent, it would have been obvious to one skilled in the art to insulate the frame of the woodworking machine from the shaft in order to avoid false alarms that shut the motor off due to conduction between a person, or any other conductive material, and the frame.

17. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hornung in view of US 5,587,618 to Hathaway.

Hornung discloses the invention substantially as claimed, but does not mention having the shaft mounted in one or more bearings supported by the frame, and where the shaft is electrically insulated from the bearings by one or more electrically insulating components disposed between the shaft and the bearings. It would have been obvious to one skilled in the art to have the shaft of Hornung in bearing since it is old and well known that putting a shaft in bearings allows smooth and controlled rotation of a shaft, and Hathaway teaches using sleeves 351 on the ends of shaft 210 in order to electrically insulate the shaft from the bearings (column 13, lines 57-59). Therefore, it would have been obvious to electrically insulate the shaft of Hornung from bearings using electrically insulating components disposed between the shaft and the bearings since Hathaway teaches the use of sleeves between a shaft and bearings to electrically insulate a shaft from the rest of the machine to which it is attached (column 13, lines 40-45).

18. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hornung in view of US 5,587,618 to Hathaway in further view of US 1,551,500 to Morrow.

Hornung in view Hathaway discloses the invention substantially as claimed, but has insulation between the shaft and bearings as opposed to between the bearings and the frame. Morrow teaches that, in a cutting tool safety system where electrical charge is meant to be built up on the cutting tool, any or all of the components between a blade and ground (or grounded structure) may be insulated as long as the blade can be energized by the drive electrode through a conductive material (page 1, lines 74-88). Therefore, it would have been obvious to one skilled in the art at the time of the

invention to have insulation between the bearings and the frame in order to be able to use a wider array of metallic bearings with a more resilient bearing-to-blade attachment, while moving the insulation to be between the bearings and the frame in order to insulate the shaft and cutting tool from the frame.

19. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friemann et al.

Friemann et al. discloses the invention substantially as claimed, but does not indicate a value for the capacitance of the capacitive coupling. A capacitance of at least 10 picofarads would have been obvious to one skilled in the art at the time of the invention since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Response to Arguments

20. Applicant's arguments filed 10/21/03 with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments with respect to claims 17-18 have been fully considered but they are not persuasive.

Applicant contends that Friemann discloses a conductive coupling between rollers 12 and band cutter 5, and therefore does not disclose a capacitive coupling between a contact detection system and a cutting tool.

Applicant's remarks are well taken; however, it the Examiner's position that the reference anticipates and makes obvious the claimed invention. Friemann discloses a

band cutter that is isolated from the rest of the machine and is connected as capacitance in a bridge circuit that is balanced during normal operation and unbalanced when a person contacts the band cutter. While the band cutter 5 is "electrically connected" to the contact rollers 12, the band cutter is clearly capacitively coupled to the contact detection system 3 since the band cutter is the outermost conductive material in the system, and it is connected to a bridge 3, and there is a capacitance C_{Bm} ; therefore, although the circuit diagram only shows a single curved line to represent the capacitance, the "electrical connection" between the band cutter and the bridge must be through a capacitive coupling since a single conductive path cannot constitute the stated capacitance C_{Bm} . Therefore, the capacitive coupling is inherent in Friemann.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Druan, Jr. whose telephone number is 703-308-4200. The examiner can normally be reached on M-F (8:30-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 703-308-1082. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

9909
tjd
January 26, 2004


BOYER ASHLEY
PRIMARY EXAMINER